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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,910	09/18/2003	Kazue Kudo	16869G-087100US	7077

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EXAMINER

BERNATZ, KEVIN M

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,910

Applicant(s)

KUDO ET AL

Examiner

Kevin M. Bernatz

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Amendment

1. Amendments to claim 16, filed on March 14, 2006, have been entered in the above-identified application.
2. The declaration of Kazue Kudo filed March 14, 2006 has been received and duly considered.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 8 – 10 and 15 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shouji et al. (U.S. Patent No. 6,033,580) in view of Chen et al. (U.S. Patent No. 6,776,891 B2) for the reasons of record as set forth in Paragraph No. 6 of the Office Action mailed on December 14, 2005.
5. Claims 12 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shouji et al. in view of Chen et al. as applied above, and further in view of Hashimoto et al. (U.S. Patent App. No. 2003/0188422 A1) for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on December 14, 2005.

Response to Arguments

6. The rejection of claims 8 – 10 and 12 - 17 under 35 U.S.C § 103(a) – Shouji et al. in view of various references

Applicant(s) argue(s) that the “present invention provides a smooth, thick, glossy, and clear CoNiFe alloy film” (*page 5 of response*). The Examiner respectfully disagrees.

The Examiner notes that the present claims don’t contain any limitations directed to a smoothness, thickness, gloss or clarity of the film. Furthermore, the specification does not appear to support applicants’ contention that the film is a “smooth, thick, glossy and clear” CoNiFe alloy film.

Applicants further argue that Chen et al. “does not disclose to which portion the plated film is applied” (*page 6 of response*) and that the pH used by Chen “is different from the pH value of 2 or less as recited in the claimed invention (*ibid*). The Examiner respectfully disagrees.

Applicant(s) are reminded that “the test for obviousness is not whether features of the secondary reference may be bodily incorporated into the primary reference’s structure, nor whether the claimed invention is expressly suggested in any one or all of the references, rather the test is what the combined teachings would have suggested to those of ordinary skill in the art.” *Ex parte Martin* 215 USPQ 543, 544 (PO BdPatApp 1981). In the instant case, as noted in the rejection of record Shouji et al. clearly states that the pole pieces should be made of a film possessing high saturation magnetization, which is exactly the motivation behind the alloy composition taught by the Chen et al.

invention. Furthermore, applicants are reminded that a single point of overlap is still a *prima facie* case of obviousness, barring a showing of unexpected results.

To that end, applicants submit that the claimed pH value of 2 or less produces unexpected results as alleged in the declaration of Kazue Kudo, in order to achieve a magnetic layer having enough thickness of smooth surface (*pages 6 and 7 of response*). The Examiner respectfully disagrees.

First, the Examiner notes that the specification is silent regarding any smoothness value or a "thickness of smooth surface". Second, it is unclear what applicants mean by "thickness of smooth surface". Do they simply mean an overall film thickness? Do they mean a thickness of just a top surface/interface? Do they mean without additional polishing, or of a layer capable of being polished? And to what magnitude is "smooth"? The specification provides no guidance as to what applicants mean by the above language. Furthermore, it appears that the specification actually teaches that additional factors are also critical for achieving a thick film, such as saccharin sodium (*see Paragraph 0013 of the specification*).

Which brings us to the third concern of the Examiner, namely that the declaration and arguments of unexpected results is not commensurate in scope with the claims. As noted above, there appears to be many factors that affect the thickness of a film, as well as the surface roughness. These include the film composition, bath temperature, current density, additives and their concentrations, etc. The present declaration provides no evidence for what range in values for the above properties the alleged unexpected results hold true.

Finally, the Examiner notes that the above may not be required by applicants since it appears that the results argued as "unexpected" are not unexpected, but would have been within the knowledge of one of ordinary skill in the art. Lash ('482) and Anderson et al. ('216), cited pertinent art below, both teach that low pH values in a CoNiFe plating bath are preferred since lower pH values (<3) inhibit the formation of ferric acid ions which cause cloudy films, as well as recognizing that using low pH values in addition to selective additives can achieve films with excellent leveling characteristics (i.e. smoothness). As such, the Examiner deems that there is sufficient evidence that an artisan of ordinary skill in the art would have expected to achieve improved film smoothness by using low pH values, with or without additional additives (which the Examiner notes the present claims are open to).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Osaka (U.S. Patent No. 6,337,007 B1) teaches a CoNiFe based soft magnetic film plated from a bath using a pH of 1.5 – 3.0 (*entire disclosure*). Omata (U.S. Patent No. 5,011,581) teaches a CoNiFe based alloy plated from a bath with a pH of 1.5 – 5.0 (*entire disclosure*). Anderson et al. (U.S. Patent No. 4,661,216) teach plating a CoFeNi base film in low pH (2.5 – 4.0) to avoid cloudy films (*col. 3, line 60 bridging col. 4, line 5*). Lash (U.S. Patent No. 4,129,482) teaches a CoNiFe film plated from a low pH bath (<3) wherein an additive is used to insure good leveling at low pH,

gaining the advantages of plating at low pH (*col. 1, lines 1 – 57 and col. 3, lines 27 – 51*).

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

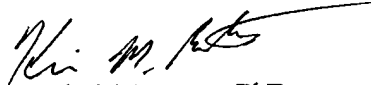
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMB
May 9, 2006


Kevin M. Bernatz, PhD
Primary Examiner